

REMARKS

This responds to the Final Office Action mailed on June 24, 2008.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-32 remain pending in this application.

Specification Objections

The paragraph beginning at page 28, line 14 was objected to as being informal. Appropriate corrections have been made.

Declaration and Power of Attorney

A new oath or declaration was required in compliance with 37 C.F.R. 1.67(a). A newly executed Declaration (and Power of Attorney) identifying this application by application number and filing date accompanies this response.

§102 Rejection of the Claims

Claims 1-3, 5, 7 and 29-31 were rejected under 35 U.S.C. § 102(e) for anticipation by Kalluri et al. (U.S. Patent No. 5,937,331).

New grounds of rejection

In the "Response to Arguments" section it is asserted that Examiner does not directly cite trigger 200 to show the "control signal" recited in claim 1. It is respectfully pointed out that in the "Claim Rejections" section, on page 7 (line 3 of the second complete paragraph), Examiner directly cites "extracted trigger from trigger extraction unit 56," which is the same trigger that was generated by trigger generator 14 and illustrated in detail as trigger 200 in Figure 2 to show "control signal." It is respectfully requested that if Examiner intends to assert new grounds of rejection and cite a feature other than the trigger of Kalluri to show the "control signal" recited in claim 1, the Final Office action is improper and it is respectfully requested that the finality of the Office action be withdrawn.

Trigger commands in Kalluri are not "interactive content"

It is respectfully submitted that the term "interactive," in the context of broadcasting and receiving media, refers to explicit interaction between a user and a software package, e.g., as in allowing a viewer to directly control the provided video. The term "interactive content" is well known in the art to refer to interaction between a user and a computer system and is distinct from a condition or a command detected by a computer module that may cause the computer module to perform certain operations. For example, an automatically generated command that is automatically provided to a server is not "interactive content" because it does not contemplate any interaction with a user. Thus, a command extracted from a signal by a decoder that is then provided to a server that controls loading and playing of a program - such as the trigger discussed in Kalluri at 2: 50-54, 6: 40-49, Fig. 1, and throughout the specification - is by no stretch can mean "interactive content."

Thus, as already explained in the previous communication, the trigger in Kalluri is distinct from "interactive content" recited in claim 1. Therefore, Examiner's reliance on a trigger command of Kalluri to show "interactive content" recited in claim 1 is improper and it is respectfully requested that the rejections of claims that rely on a trigger as disclosing "interactive content" be withdrawn.

Reliance on a "trigger command" to show three distinct elements on claim 1 is improper

As was already pointed out in the previous communication, the Office action cites the trigger command in Kalluri to show three distinct elements of claim 1: a first interactive content, an interactive content code, and a control signal. The relevant portion of the detailed action (at pages 6 and 7) is reproduced below.

Regarding Claim 1, Kalluri discloses a system for providing interactive content (fig. 1, Col. 4, ll. 56-67) comprising: hardware (16 – figure 1) adapted to receive one or more first video streams that include video data (from television signal source 12 – figure 1), first interactive content (trigger from trigger generator 14 – figure 1), and an

interactive content code (200 - figure 2), wherein the interactive content code includes an option field (206 - figure 2), and wherein the hardware is further to produce a second video stream (combined signal (television-trigger) output from trigger insertion unit 16 to modulator 18 shown in fig. 1) (Col. 5, lines 1-6 & lines 18-30; Col. 6, lines 1-13 & lines 40-49).

Kalluri further discloses an interactive content code detector (trigger extraction unit 56 - figure 1) adapted to detect the interactive content code (200 - figure 2) and the option field (original or repeat field 206 - figure 2) (Col. 5, lines 43-52), and based on the value of the option field (i.e., either "0" or "1"; Col. 6, lines 40-49), to produce a control signal to indicate the first interactive content (extracted trigger) is to be replaced with second interactive content (interactive program output from interactive program source 58) (Col. 8, lines 23-36).

Kalluri teaches a data insertion unit (interactive program source 58, data input unit 66, and AVI transmission unit 68 shown in figure 1) adapted to receive (from 56, Col. 5, lines 45-50) the control signal (extracted trigger from trigger extraction unit 56) and to insert (providing to AVI transmission unit 68 for combining with television signal, Col. 5, lines 53-62) interactive content (interactive program) into the second video stream (television signal output from A-V compression unit 64) to produce a third video stream (AVI signal, fig. 1) (Col. 5, lines 47-62).

In Kalluri, the trigger generator generates a trigger, this trigger is then inserted into a television signal, which is received at a VBI detector. The VBI detector extracts the trigger from the combined television signal and provides the trigger to a server. The server uses the trigger to control loading or playing of an interactive program. (Kalluri, 2: 31-53.)

As is evident from Examiner's language reproduced above, the "first interactive content" of claim 1 is shown by "trigger from trigger generator 14 - figure 1." A trigger command generated by the trigger generator 14 is illustrated in detail in figure 2 in Kalluri. In Figure 2, the trigger command is identified by the reference numeral 200. The trigger 200 (which is the same command as the command generated by the trigger generator 14 of figure 1) is cited by

Examiner to show the "interactive content code" of claim 1. Finally, as can be seen from the passage reproduced above, Examiner cites "extracted trigger from trigger extraction unit 56," (which is the same trigger that was generated by the trigger generator 14 and is illustrated as element 200 in Figure 2) to show "control signal" that is produced, according to claim 1, *based on* an option field within the interactive content code. It is submitted that, first, as explained above, a trigger command in Kalluri is not an interactive content and , second, cannot be treated simultaneously as "an interactive content code" and "a control signal" produced, according to claim 1, *based on* an element of that interactive content code.

Therefore, Examiner's reliance on a trigger to show simultaneously "a first interactive content," "an interactive content code," and "a control signal" is improper and it is respectfully requested that the rejections of claims that rely on a trigger command as disclosing these three distinct elements of claim 1 be withdrawn.

Kalluri does not disclose all elements of claims 1 and 29

As explained above, there is no indication in Kalluri that the trigger itself comprises interactive content. Therefore, a television signal that includes trigger commands (as in Kalluri) is distinct from a video stream that includes "video data, first interactive content and an interactive content code," as recited in claim 1. Furthermore, the source television signal in Kalluri does not include interactive content until the interactive content is combined with the television signal in accordance with the trigger commands. It is submitted that an operation of including certain content into a signal is distinct from replacing first content with the second content. Thus, because, in Kalluri, interactive content is for the first time added to the television signal in accordance with the trigger commands, the operations to be performed by the interactive program source described in Kalluri (e.g., at 8: 23-36) do not include any operations "to produce a control signal to indicate the first interactive content is to be **replaced** with second interactive content," as recited in claim 1.

Thus, because Kalluri fails to disclose or suggest at least a first video stream that includes "video data, first interactive content and an interactive content code" and "an interactive content code detector adapted to detect the interactive content code and the option field therein, and

based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content," claim 1 and its dependent claims are patentable in view of Kalluri and should be allowed.

Claim 29 recites "the first video stream including video data, first interactive content, and an interactive content code" and "based on a value of the option field, selectively replacing the first interactive content in the second video stream with second interactive content to produce a third video stream." Thus, claim 29 and its dependent claims are patentable in view of Kalluri for at least the reasons articulated with respect to claim 1.

§103 Rejection of the Claims

Claims 6 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Blackketter et al. (U.S. Patent No. 6,415,438). Blackketter discloses a trigger that is broadcast along with a television video and that may include a Uniform Resource Identifier (Blackketter, 8: 5015; 1: 18-30).

Blackketter, whether considered separately or in combination with Kalluri, fails to disclose or suggest "video data, first interactive content and an interactive content code" and "an interactive content code detector adapted to detect the interactive content code and the option field therein, and based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content." This feature is present in claim 6 by virtue of its being dependent on claim 1. Thus, claim 6 is patentable in view of the Blackketter and Kalluri combination and should be allowed.

Blackketter, whether considered separately or in combination with Kalluri, fails to disclose or suggest "the first video stream including video data, first interactive content, and an interactive content code" and "based on a value of the option field, selectively replacing the first interactive content in the second video stream with second interactive content to produce a third video stream." This feature is present in claim 32 by virtue of its being dependent on claim 29. Thus, claim 6 is patentable in view of the Blackketter and Kalluri combination and should be allowed.

Claims 4, 8-14, 17, 19-22, 24 and 27-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393).

Hite is directed at system and method for targeting TV advertisements to individual consumers. (Hite, Abstract.) Hite discloses transmitting to a recording device instructions that are used to "tell" the display which commercials should be played and which ones should be ignored. Such instructions are provided in advance of the commercial broadcast. (Hite, 4: 10-21.) Hite also discloses multiple commercials being simultaneously broadcasted in a television or radio commercial spot. One of the number of commercials in Hite may be designated or chosen as a default commercial. This default commercial is played unless replaced by a targeted commercial. (Hite, 4: 29-32.)

As explained in the response to the previous Office action, there is no indication that any of the commercials in Hite are in a form of a video stream that includes interactive content. The explanation provided in responses to the previous Office actions is repeated below.

The Office action makes a statement that a commercial in Hite supports interactivity and refers to the following description.

A viewer reaction feature can be included to cause additional relevant commercials to be presented in reaction to a viewer's response to questions or other viewer interaction transmitted using the up stream reporting capability described above. The relevant commercials could be for more detailed information about the same product or service. Alternatively, they could be for products or services which are likely to be of interest to the viewer based on the viewer's responses. For example, a viewer who requests more information about children's aspirin may also be offered a subsequent commercial on children's chewable vitamins.

Hite, 3: 17-29.

As can be seen from the passage above, it appears that the Office action presumes that commercials in Hite support interactivity because Hite mentions "a viewer reaction feature" that

entails presenting additional commercials in reaction to *a viewer's response to questions or other viewer "interaction"* transmitted using the up stream reporting capability. It is submitted that a viewer's response to questions in particular and other viewer interaction in general is possible without the commercial including interactive content (e.g., a viewer may provide responses to questions by calling the telephone number or accessing the web site displayed in the commercial). The reference to *viewer interaction* in the passage does not disclose interactive content included in a video stream, which is evident from the description of the reporting capability utilized in Hite to transmit such "other user interaction." Hite discloses the reporting capability as follows.

In two way broadband systems, it is possible to implement an up stream reporting capability where signals are transmitted from the viewing location to a central database location for *reporting whether a specific viewing location had its receiving equipment powered and tuned to a specific channel*. This information can be used to further target the commercials. In situations where the broadband network is not capable of sending messages back to the central database, *other means* can be provided. *An example of such means is an auto dialer device* which accumulates the information and then at appropriate times dials a number and reports the accumulated data. The number dialed could be a local number or a "toll free 800" number. The reporting call can be made in a manner which first tests to see if the phone line is in use and thereby ensures that calls in progress will not be interrupted. If someone in the home wishes to use the phone, this can be sensed and the report suspended and the phone line relinquished so that another call can be made. The interrupted data transmission would be completed later. In this manner, the use of *an auto dial reporting capability* can be accomplished without intrusion on the normal use of the telephone line.

Hite, 2: 44-65.

As can be seen from the passage above, while Hite discloses monitoring and reporting whether the receiving equipment is powered and tuned to a specific channel, there is no hint of any of the commercials in Hite being in a form of a video stream that includes interactive content. It is submitted that information related to viewer interaction is obtained in Hite by monitoring

whether the receiving equipment is powered and tuned to a specific channel. This technique does not suggest any interactive content being included in the video stream. The Office action further states that Hite discloses an interactive content code by referring to transmitting to a recording device instructions that are used to "tell" the display which commercials should be played and which ones should be ignored (Hite, 4: 10-21.) It is submitted that the instructions mentioned above are not related to any interactive content, particularly in view of Hite lacking any description of a video stream that includes interactive content. Consequently, Hite fails to disclose or suggest any operation performed with respect to interactive content.

As explained above, Hite lacks any description of a video stream that includes interactive content and, consequently, fails to disclose or suggest any operation performed with respect to interactive content. Consequently, Hite, whether considered separately or in combination with Kalluri, fails to disclose or suggest "hardware adapted to receive one or more first video streams that include video data, first interactive content and an interactive content code, wherein the interactive content code includes an option field ...; an interactive content code detector adapted to detect the interactive content code and the option field therein, and based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content; and a data insertion unit adapted to receive the control signal and to insert the second interactive content into the second video stream to produce a third video stream." These features is present in claim 4 by virtue of its being dependent on claim 29. Thus, claim 4 is patentable in view of the Hite and Kalluri combination and should be allowed.

Claim 8 recites "the encrypted interactive content code specifies second interactive content to replace the first interactive content." As explained above, with reference to claim 1, because the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands, the operations to be performed by the interactive program source described in Kalluri do not include any operations to replace the first interactive content with second interactive content. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 8 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 14 recites "inserting the encrypted interactive content code into a first video stream including first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 14 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 17 recites "a first video stream including first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 17 and its dependent claim are patentable in view of the Kalluri and Hite combination.

Claim 19 recites "hardware adapted to receive a first video stream that includes video data, first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 19 is patentable in view of the Kalluri and Hite combination.

Claim 20 recites "the one or more first signals include video data, first interactive content, and one or more encrypted interactive content codes." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 20 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 27 recites "inserting an encrypted interactive content code into a first component of a first signal alternate to a second component, which includes first interactive content and is used to convey the first interactive content." As explained above, with reference to claim 1, the

source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 27 is patentable in view of the Kalluri and Hite combination.

Claims 15, 18 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) as applied to claims 14 and 17 above, and further in view of Blackketter et al. (U.S. Patent No. 6,415,438).

Claim 15 includes the feature of "inserting the encrypted interactive content code into a first video stream including first interactive content" by virtue of its being dependent on claim 14. As explained above, this feature is not present in the Kalluri and Hite combination. Blackketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 15 is patentable in view of the Blackketter, Kalluri, and Hite combination.

Claim 18 includes the feature of "a first video stream including first interactive content" by virtue of its being dependent on claim 17. As explained above, this feature is not present in the Kalluri and Hite combination. Blackketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 18 is patentable in view of the Blackketter, Kalluri, and Hite combination.

Claim 23 includes the feature of "the one or more first signals include video data, first interactive content, and one or more encrypted interactive content codes" by virtue of its being dependent on claim 20. As explained above, this feature is not present in the Kalluri and Hite combination. Blackketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 23 is patentable in view of the Blackketter, Kalluri, and Hite combination.

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331), Hite (U.S. Patent No. 6,002,393) and Blackketter et al. (U.S. Patent No. 6,415,438) as applied to claim 15 above, and further in view of Ciciora et al. ("3.3.5

Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

Claim 16 includes the feature of "inserting the encrypted interactive content code into a first video stream including first interactive content" by virtue of its being dependent on claim 14. As explained above, this feature is not present in the Blackketter, Kalluri, and Hite combination. Ciciora discloses various information that may be carried in the vertical blanking interval (Ciciora, section 3.3.5). Ciciora, whether considered separately or in combination with Blackketter, Kalluri, and Hite, also fails to disclose or suggest this feature. Thus, claim 16 is patentable in view of the Blackketter, Kalluri, and Hite combination.

Claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) in view of Blackketter et al. (U.S. Patent No. 6,415,438), and further in view of Ciciora et al ("3.3.5 Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

The Office action correctly stated that the combination Blackketter, Kalluri, and Hite fails to disclose or suggest inserting interactive content codes into different regions of data in a video stream. The Office action cites Blackketter to show this limitation. Blackketter describes broadcasting a duplicate trigger to make sure the trigger is received at the destination. It is submitted that broadcasting a trigger twice is distinct from "inserting a plurality of encrypted interactive content codes including corresponding option fields **into different regions of data in a video stream to be broadcast** to a plurality of local subsystems," as recited in claim 25. This deficiency of the Blackketter, Kalluri, and Hite combination is not remedied by combining Blackketter, Kalluri, and Hite with Ciciora, which refers to various information that may be carried in the vertical blanking interval (Ciciora, section 3.3.5). Thus, claim 25 is patentable in view of the Blackketter, Kalluri, Ciciora, and Hite combination.

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) in view of Kaiser et al. (U.S. Patent No. 6,615,408), and further in view of Ciciora et al ("3.3.5 Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

Claim 26 includes the feature of "conditions for replacing the first interactive content with the second interactive content." As explained above, this feature is not present in the Blackketter, Kalluri, and Hite combination. Ciciora, as well as Kaiser, directed at embedding a trigger in the vertical blanking interval (Kaiser, 6: 65-67 and 7: 1-4), whether considered separately or in combination with Blackketter, Kalluri, and Hite, also fails to disclose or suggest this feature. Thus, claim 26 is patentable in view of the Blackketter, Kalluri, Ciciora, Kaiser, and Hite combination.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (408) 278-4052 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 11.10.2008

By 

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 10 day of November, 2008.

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